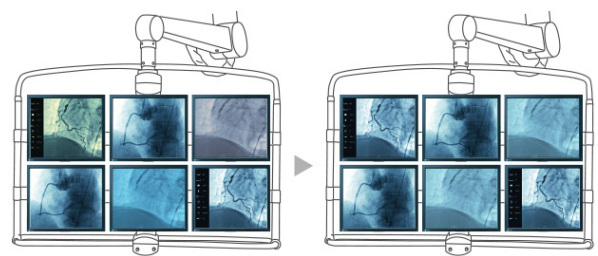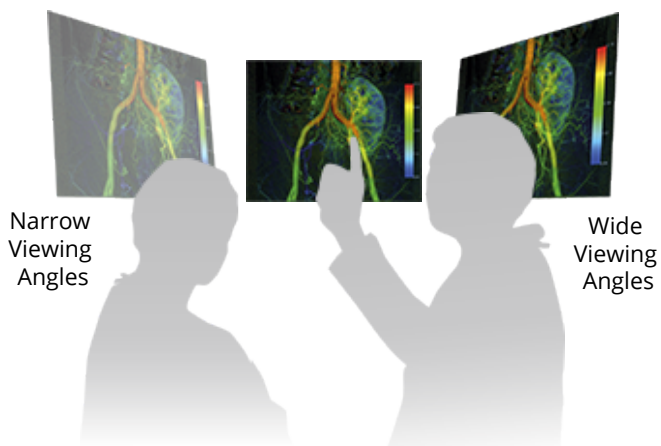# CuratOR® EX190
Surgical Monitor

19-inch High-Brightness Color Monitor for Accurate Displaying and Diagnosis of Images in the Medical Environment

Perfect Image Reproduction with IPS LCD Technology

The LCD technology used eliminates picture geometry distortions and color spots. The monitor delivers flicker-free images, even at low refresh rates (60 Hz). In addition, IPS technology guarantees improved contrast values and significantly higher viewing angle stability. The result is a device that meets the highest ergonomic requirements.

Individualized Color Point Adjustment

The monitor's default blue color location can be adjusted to individual requirements using a color slider. This enables color adjustment in the field such as when replacing a monitor. The adjustment can be performed via the On Screen Display (OSD) without external tools such as a luminance meter or calibration software.

Narrow Viewing Angles

Wide Viewing Angles

CuratOR® EX190

Support of Complex Timing Requirements

Although the monitor automatically detects standard video signals, older medical devices frequently cause problems due to their unusual timing. These special application requirements can be met using the Force Mode function.

Freely Adjustable User Lookup Table (LUT)

The adjustable LUT makes it possible for LUT recalculations to be initiated manually. Within this recalculation the gamma model, luminance settings, or color parameters can be modified. The LUT is calculated via OSD menu without having to access external calibration software. The reset LUT is calculated immediately, saved in the device, and used immediately for image display. This provides the user with the ability to establish the user LUT individually without using luminance meter.

Display of Different Signal Resolutions

The optimum screen resolution is 1280 x 1024 pixels. Video signals with other resolutions, common in medical technology, are automatically adapted to the screen size. Alternatively they can be displayed in original size (1:1).

Consistency with DICOM Part 14 Calibration

The monitor is precalibrated to meet the DICOM Part 14 standard, thereby ensuring permanently consistent image transmission. The five default look-up tables (LUTs) contain practice-based settings. They take into account the DIN 6868-157 room classes, thereby meeting current specifications for diagnostic monitors.

Constant Luminance Regulation

An integrated brightness sensor, using EIZO fully automated brightness control, ensures fast luminance stabilization during system start and compensates for fluctuations that occur in the course of operation due to differing ambient temperatures.

Cascading Multiple Monitors

The integrated Loop-Through output (BNC video / SoG signal) enables connection with multiple other monitors or image archiving in the operating room.

Installation on a VESA Ceiling Suspension

Compliance with the VESA standard enables attachment to existing mounting accessories.
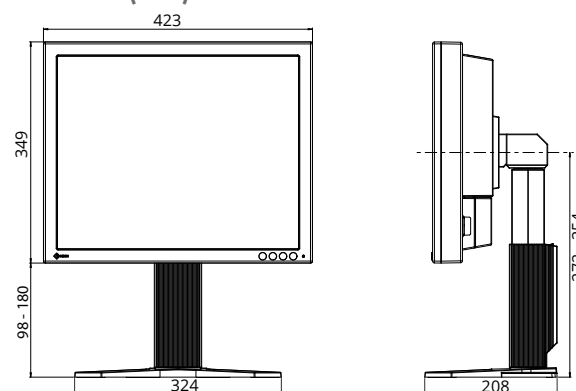
Versatile Positioning for Improved Ergonomics

EIZO's highly versatile stand offers tilt, swivel and a wide height adjustment range enabling you to use the monitor with greater comfort.
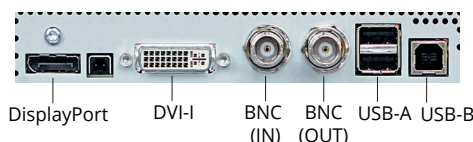
Specifications

Model Variations		EX190: without Stand EX190-S: with Stand
Cabinet Color		Black
Panel	Type	TFT Color-LCD Panel (IPS)
	Backlight	LED
	Size	148 cm / 19"
	Native Resolution	1280 x 1024 (5:4 aspect ratio)
	Viewable Image Size (H x V)	376.0 x 301.0 mm
	Pixel Pitch	0.294 x 0.294 mm
	Display Colors	8-bit colors: 16.77 million colors
	Viewing Angles (H / V, typical)	178° / 178°
	Brightness (typical)	700 cd/m²
	Recommended Brightness for Calibration	400 cd/m²
	Contrast Ratio (typical)	900:1
	Response Time (typical)	14 ms (on/off)
Video Signals	Input Terminals	DisplayPort (DVI-Signal), DVI-I (digital and analog RGBHV), BNC (SoG- or CVBS signal)
	Output Terminals (Loop-Through)	BNC (SoG signal)
	Digital Scanning Frequency (H / V)	30 - 80 kHz / 60 - 75 Hz
	Analog Scanning Frequency (H / V)	30 - 80 kHz / 50 - 85 Hz
	Sync Formats	Sync Separate, Composite Sync and SoG
USB	Upstream	USB 2.0: Type-B
	Downstream	USB 2.0: Type-A x 2
Power	Power Requirements	AC 100 - 240 V: 50 / 60 Hz
	Maximum Power Consumption	Less than 58W
	Power Save Mode	Less than 8 W
	Power Management	Digital: DVI DMPM Analog: VESA DPM
Sensor		Backlight Sensor
OSD Language		English, German
Features & Functions		Color Slider, Force Mode
Physical Specifications	Net Weight	EX190-S: 8.1 kg
	Net Weight (Without Stand)	EX190: 5.1 kg
	Hole Spacing (VESA Standard)	100 x 100 mm, M4, depth 5 - 10 mm
Degree of Protection		IP20
Certifications & Standards (Please contact EIZO for the latest information)		CE / UKCA (Medical Device), IEC/EN60601-1, CAN/CSA C22.2 No. 60601-1-08, ANSI/AAMI ES60601-1:2005 / A2:2010, EN60601-1-2 Class B, FCC-B, RCM, RoHS, China RoHS, WEEE, CCC, BIS (EX190-S only)
Supplied Accessories (May vary by country. Please contact EIZO for details)		Signal cables (DVI-D - DVI-D, DisplayPort), adapter (DVI - VGA), Utility Disk (PDF instructions for use)
Order Numbers		EX190-S: 6GF6210-2EL01 EX190: 6GF6210-2EL10

Dimensions (mm)

423
349
98 - 180
324
272 - 354
208

Connectors

DisplayPort DVI-I BNC (IN) BNC (OUT) USB-A USB-B